REMARKS

Reconsideration of the above-identified application in view of the amendments above and the remarks following is respectfully requested.

By this amendment, claims 1-8, and 10-19, and 42-71 are pending in this case. Claims 1-19 are rejected. Claims 9 and 20-41 have been cancelled, claims 1-5, 8, 10 and 16-19 have been amended, and new claims 42-71 have been added. Currently claims 1 and 50 are independent. No new matter has been added. Support for the amendments and for new claims 42-71 can be found in the specification of the present application as originally filed, specifically on pages 12 and 13.

Applicants would like to thank the Examiner for granting a Personal Interview on February 25, 2003.

Elections/Restrictions

The Examiner has stated that affirmation of a telephone election must be made by the Applicant in replying to the Office Action. In response, Applicants affirm the election of Group I, claims 1-19.

Specification

The Examiner has objected to the specification because of several informalities. In response, Applicants have submitted replacement paragraphs to correct the informalities. Accordingly, Applicants respectfully request that the objection be withdrawn.

35 USC § 102 Rejection – Richter et al.

The Examiner rejected claims 1, 7, 8, 10-13, and 15-18 under 35 USC § 102(b), as being anticipated by Richter et al. (USPN 5,755,734). Specifically, the Examiner stated that Richter et al. anticipates the claim language where the catheter body as claimed is element (170) of Richter, side member as claimed is element (171) as claimed, and the stent as claimed is element (110) of Richter.

In response, Applicants have herein amended claim 1 to include the limitation that the side member is fixedly attached to at least one location on the catheter. Thus, claim 1 calls for a system wherein the side member is fixedly attached to at least one location on the catheter body, yet the side member disposed beneath at least a portion of the stent is adjacent to and capable of being movable with respect to the catheter.

In contrast, Richter et al. disclose two separate catheters that can slide relative to one another. In particular, Richter discloses a stent crimped on the two catheters, but this does not fixedly attach the two catheters, rather, the two catheters are capable of independent movement. For example, Richter et al. disclose that: "Balloons 175 and 176 are deflated, second catheter 171 is withdrawn..."(column 6, lines 52-53). Second catheter 171 is withdrawn so that the second leg portion 140 can be applied to the second catheter 171. (Richter et al. at col. 6, lines 54-63.) Thus, Richter et al. require a configuration in which two catheters move independently so that one can be withdrawn and a second stent or stent portion can be inserted subsequently.

Accordingly, Richter et al. do not disclose each and every element of claim 1.

Furthermore, it would not have been obvious to fixedly attach at least one location on the independent catheters of Richter et al. because Richter et al. discloses two catheters that are required to move independent from one another in that the second catheter must be withdrawn after the balloons are deflated so that the second leg portion of the stent can be applied to it and it can be reinserted. Accordingly, Richter et al. teach away from fixedly attaching two catheters together as claimed.

Finally, claim 1 also has been amended to remove the balloon limitation and to provide emphasis to the wherein clause. As such, at least these amendments are not considered to be narrowing amendments.

Accordingly, it is respectfully submitted that claim 1 is in condition for allowance. At least for the reasons discussed above with respect to claim 1, dependent claims 7, 8, 10-13 and 15-18 are also in condition for allowance.

35 USC § 103(a) Rejection – Richter et al. in view of Fischell et al. and Davila et al.

The Examiner rejected claims 2-6 under 35 USC § 103(a) as being unpatentable over Richter et al. (USPN 5,755,734) in view of Fischell (USPN 5,669,932). Furthermore, the Examiner rejected claims 9 and 19 under 35 USC § 103(a) as being unpatentable over Richter et al. (USPN 5,755,734) in view of Fischell et al. (USPN 5,749,825). Furthermore, the Examiner rejected claim 14 as being unpatentable over Richter et al. (USPN 5,755,734) in view of Davila et al. (USPN 5,851,464).

At least for the reasons discussed above with respect to claim 1, claims 2-6, 14 and 19 are in condition for allowance. Claim 9 has been cancelled. New claims 42-49, which are dependent on claim 1, are also allowable for at least the reasons discussed above.

New claims 50-71

Applicants have added independent claim 50 which is directed to a catheter system with first and second radiopaque markers juxtaposed in a first configuration and separated in a second configuration at the side branch. The prior art of record fails to disclose or suggest the features of claim 50. At least for the reasons discussed with respect to claim 50, dependent claims 51-71 are also allowable.

CONCLUSION

In view of the foregoing amendments and remarks, Applicant respectfully requests the reconsideration of this application and the timely allowance of the pending claims. Applicant respectfully invites the Examiner to contact the undersigned at 202.739.5793 if there are any outstanding issues that can be resolved via a telephone conference.

EXCEPT for any issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the pendency of this application including fees due under 37 C.F.R. §§ 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account No. 50-0310. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Attached herewith is a marked up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "Version with Markings to Show Changes Made."

MORGAN, LEWIS & BOCKIUS

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Specification:

The paragraph starting on page 1, line 3, has now been amended as follows:

CROSS-REFERENCES TO RELATED APPLICATIONS

This application is a continuation in part of abandoned U.S. Patent Application Serial No. 09/614,472, filed July 11, 2000, which is a continuation in part application of U.S. Patent Application Serial Nos. 09/325,996, filed June 4, 1999, now abandoned, and is also a continuation in part application of co-pending U.S. Patent Application Serial No. and 09/455,299, filed December 6, 1999.

U.S. Patent Application Serial No. 09/325,996, of which the present application is a continuation in part, is a continuation in part of expired PCT application US99/00835, filed January 13, 1999, published under publication number WO99/36002, which claims priority from U.S. Patent Application Serial No. 09/007,265, filed January 14, 1998 and which issued on April 3, 2001 as U.S. Patent Number 6,210,429, which is a continuation in part of U.S. Patent Application Serial No. 08/744,002, filed November 4, 1996, now abandoned. U.S. Patent Application Serial No. 09/325,996, of which the present application is a continuation in part, also claims priority from abandoned U.S. Patent Application Serial No. 08/935,383, filed September 23, 1997, which is a divisional application of U.S. Patent Application Serial No. 08/744,002, filed November 4, 1996, now abandoned. U.S. Patent Application Serial No. 09/325,996, of which the present application is a continuation in part, also claims priority from abandoned U.S. Patent Application Serial No. 09/007,265, filed January 14, 1998 and

which issued on April 3, 2001 as U.S. Patent Number 6,210,429, which is a continuation in part of U.S. Patent Application Serial No. 08/744,002, filed November 4, 1996, now abandoned. U.S. Patent Application Serial No. 09/325,996, of which the present application is a continuation in part, also claims priority from abandoned U.S. Provisional Patent Application Serial No. 60/088,301, filed June 5, 1998.

U.S. Patent Application Serial No. 09/455,299, of which the present application is a continuation in part, claims priority from abandoned U.S. Provisional Patent Application Serial No. 60/088,301, filed June 5, 1998, and is also a continuation in part application of abandoned U.S. Patent Application Serial No. 09/325,996, filed June 4, 1999. U.S. Patent Application Serial No. 09/455,299, of which the present application is a continuation in part, also claims priority from abandoned U.S. Patent Application Serial No. 09/007,265, filed January 14, 1998 and which issued on April 3, 2001 as U.S. Patent Number 6,210,429, which is a continuation in part of U.S. Patent Application Serial No. 08/744,002, filed November 4, 1996, now abandoned. Patent Application Serial No. 09/455,299, of which the present application is a continuation in part, also claims priority from abandoned U.S. Patent Application Serial No. 08/935,383, filed September 23, 1997, which is a divisional application of U.S. Patent Application Serial No. 08/744,002, filed November 4, 1996, now abandoned. ~~t~~The complete disclosures of the above-referenced applications~~which~~ are herein incorporated by reference.

The paragraph starting on page 2, line 7, has now been amended as follows:

As described in related ~~co-pending~~ U.S. Patent Application Nos. 08/744,022 filed 11/04/96 (now abandoned); 09/007,265 filed 01/14/98, now issued as U.S. Patent Number 6,210,429; 08/935,383 filed 9/23/97 (now abandoned); ~~and~~ 60/088,301 filed 06/05/98 (now expired); and PCT Patent Application ~~Publication~~ No. ~~WO~~ PCT/US99/00835 filed 1/~~14~~13/~~98~~99, published under Publication Number WO99/36002 on July 22, 1999; systems have been developed for deploying a main stent in a main vessel at the intersection of a main vessel and a branch vessel. Further, a branch stent may be positioned within a branch vessel through a side opening in the main stent. As will be appreciated, such tasks may be challenging.

The paragraph starting on page 7, line 5, has now been amended as follows:

Fig. 4 illustrates the catheter of Fig. 1 after a branch vessel guidewire has been introduced through the side member and into a branch vessel.

The paragraph starting on page 15, line 20, has now been amended as follows:

Another technique for introducing a branch vessel stent 116 into branch vessel BV following deployment of main vessel stent 86 using catheter 64 is illustrated in Figs. 18 and 19. Following deployment of main vessel stent 86 in a manner similar to that previously described, catheter 64 is removed from the patient while leaving branch vessel guidewire 108 in place. A stent deployment device 118 having a balloon 120 is then advanced over guidewire 108 until branch vessel stent 116 (which is crimped about balloon 120) enters into branch vessel BV as illustrated in Fig. 18. Balloon 120 is then inflated as illustrated in Fig.

19 to deploy branch vessel stent 116. Balloon 120 may then be deflated and stent deployment device 118 withdrawn from the patient leaving in place main vessel stent 86 and branch vessel stent 116. Conveniently, branch vessel stent 116 may include a contacting portion 122 which remains disposed within side hole 88 to secure the proximal end of stent 116 to side hole 88 of main vessel stent 86. Such a contacting portion is described, for example, in PCT Patent Application No. PCT/~~WO~~ US99/00835, filed January ~~14~~13, ~~1998~~1999, published under Publication Number WO99/36002 on July 22, 1999, the complete disclosure of which is herein incorporated by reference.

In the claims:

Claims 1-5, 8, 10 and 16-19 have been amended as follows:

1. (Amended) A catheter system, comprising:

a catheter ~~comprising a catheter body~~ having a distal end, a proximal end, and a main vessel guidewire lumen that is adapted to receive a main vessel guidewire; ~~and a balloon disposed near the distal end of the catheter body, the catheter further comprising~~

a side member disposed adjacent and fixedly attached to at least one location on the catheter ~~body~~, the side member having a distal end, a proximal end, and a branch vessel guidewire lumen that is adapted to receive a branch vessel guidewire; and

a stent having a side hole through a wall thereof, the stent being disposed over the ~~balloon~~catheter;,

wherein a distal portion of the side member is disposed beneath at least a portion of the stent while being adjacent to ~~and~~the catheter, and the distal portion of the side member which is disposed beneath the at least a portion of the stent is capable of being moveable with respect to the ~~balloon~~catheter.

2. (Amended) The catheter system of claim 1, further comprising:

at least one radiopaque marker positioned on the catheter ~~body~~; and

at least one radiopaque marker positioned on the side member.

3. (Amended) The catheter system of claim 2, wherein at least one radiopaque marker on the catheter ~~body~~ is adjacent at least one radiopaque marker on the side member.

4. (Amended) The catheter system of claim 2, wherein the radiopaque marker on the catheter ~~body~~ and on the side member are positioned adjacent the side hole in the stent.

5. (Amended) The catheter system of claim 2, wherein the at least one radiopaque marker on the catheter ~~body~~ comprises radiopaque markers positioned at a proximal end and a distal end of the stent.

8. (Amended) The catheter system of claim 1, further comprising a branch stent deployment device having a balloon, a guidewire lumen, an inflation lumen that is adapted to supply a fluid to inflate the balloon, and a branch vessel stent disposed over the balloon, wherein the branch stent deployment device is adapted to be advanced over the branch stent guidewire. ~~lumen after removal of the side member~~.

10. (Amended) The catheter system of claim 1, ~~wherein the side member is fixedly attached to at least a portion of the catheter body, and~~ wherein the distal end of the side member extends out of the side hole of the stent.

16. (Amended) The catheter system of claim ~~1~~46, wherein the catheter ~~body~~ further includes a balloon inflation lumen, and further comprising a proximal end hub having a main vessel guidewire channel that is coupled to the main vessel guidewire lumen, a branch vessel guidewire channel that is coupled to the branch vessel guidewire lumen, and a balloon inflation port that is coupled to the balloon inflation lumen.

17. (Amended) The ~~stent delivery~~catheter system of claim 16, wherein the first and second guidewire channels are separated by about zero to 20°.

18. (Amended) The ~~stent delivery~~catheter system of claim 1~~0~~, wherein the distal end of the side member is unattached to the distal end of the ~~main~~ catheter.

19. (Amended) The ~~stent delivery~~catheter system of claim 18, wherein the length over which the distal end of the side member is unattached to the distal end of the ~~main~~ catheter is approximately 2 to approximately 10 cm.